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10/532,919	01/16/2006	Albert Kooiman	DE 020239	4947

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EXAMINER	
SHAH, PARAS D	
ART UNIT	PAPER NUMBER
2626	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/532,919	KOOIMAN, ALBERT	
	Examiner	Art Unit	
	PARAS SHAH	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 April 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is in response to the Amendments and Arguments filed on 04/14/2008. Claims 1-10 remain pending, while claims 11-13 are newly amended and have been examined. The Applicants' amendment and remarks have been carefully considered, but they do not place the claims in condition for allowance. Accordingly, this action has been made FINAL.

2. All previous objections and rejections directed to the Applicant's disclosure and claims not discussed in this Office Action have been withdrawn by the Examiner.

Change of Examiner

3. It should be noted that the Examiner of record for the Application has changed from Annette Keller to Paras Shah.

Response to Arguments

4. Applicant's arguments (pages 9-14) filed on 04/14/2008 with regard to claims 1-10 have been fully considered but they are moot in view of new grounds for rejection.

Response to Amendment

5. Applicants' amendments filed on 04/14/2008 have been fully considered. The newly amended limitations in claims 1, 2, 4, 9, and 10 necessitate new grounds of rejection.

Drawings

6. The drawings are objected to because the elements with reference numbers in the drawings should have labels for ease of viewing. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. No new matter may be introduced in the required drawing. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

7. Claim 7 objected to because of the following informalities: Claim 7 should be dependent upon claim 6, which introduces the "reception corruption indication signal."

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claim 10 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, the limitation of "computer readable medium" was not described in the Specification at the time of filing and hence constitutes new matter.

Claim Rejections - 35 USC § 102

10. The following is a quotation from 35 U.S.C. 102:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1, 2, 4, and 10 are rejected under 35 U.S.C. 102(b) as anticipated by Audrius Polikaitis, et al, U.S. Patent Number 6336091 (hereinafter "Polikaitis, et al).

a) As to claims 1 and 10, Polikaitis teaches a method for operating a speech recognition system (Polikaitis, et al, Fig. 2 and Fig. 3),

detecting a speech signal of a user (Polikaitis, et al, Fig. 2 and Fig. 3, 215);

analyzing the speech signal to recognize speech information (Polikaitis, et al, Fig. 2 and Fig. 3, 220) contained in the speech signal,

determining a reception quality value or a noise value (Polikaitis, et al, Fig. 2 and Fig. 3, variables in 230, 240, 250, 260, the parameters used by the reference use energy calculations to determine reception quality of the voice from the user) which represents a current reception quality, and

switching the speech recognition system over to a mode of operation which is less sensitive to noise when the noise value exceeds a noise threshold or outputting an alert signal to the user (Polikaitis, et al, Fig. 2 and Fig. 3, 233, 243, 253, 263) when the reception quality value drops below a given reception quality threshold (Polikaitis, et al, Fig. 2 and Fig. 3, thresholds in 230, 240, 250, 260) or both.

b) In the context of this claim, the "or" being satisfied if the speech recognition system (1) "switches over to a mode of operation which is less sensitive to noise" or (2) "outputs an alert signal to the user". Polikaitis, et al, teaches the invention of claim 1 consistent with option (2).

As to claim 2, Polikaitis teaches further comprising:

automatically resetting the speech recognition system to a previous mode of operation when the reception quality value (SQ) exceeds the reception quality threshold or when the noise value drops below the noise threshold (see Figure 3, output of element 230, input to repeat prompt to user 270 when it exceeds a second threshold user is prompted to repeat voice instruction during analysis window (see col. 6, lines 62-65).

As to claim 4, Polikaitis teaches a wherein

the reception quality value (S0) or the noise value is determined with a voice activity detector (see col. 4, lines 32-35, speech noise classifier (interpreted to be the speech/noise classifier in conjunction with microprocessor 110) used for determining noise and speech frames and col. 4, lines 42-col. 5, lines 15, features extracted as a result of the classification and see Figure 3, where the values are compared to a threshold to determine if speech recognition may be correct or incorrect.).

Claim Rejections - 35 USC § 103

12. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Polikaitis, et al, as applied to claim 1, and further in view of Nguyen, John N., USPN 5765130 (hereinafter "Nguyen") and Crane, Matthew, et al, USPN 7069221 (hereinafter "Crane, et al").

a) Polikaitis, et al, teaches the method of claim 1 upon which claim 3 depends. Polikaitis, et al, don't teach that a barge-in mode of operation is disabled based on the confidence measures hypothesis test results.

b) Nguyen teaches deactivating a barge-in mode operation of the speech recognition when the reception quality value drops below the reception quality threshold or the noise value exceeds the noise threshold (Nguyen, Col. 5 27-32), the barge-in mode of operation (Nguyen, Abstract) of the speech recognition system (Nguyen, Abstract).

c) It would have been obvious to one of ordinary skill in the art to implement the teachings of Nguyen, et al, into the teachings of Polikaitis, et al, since Polikaitis suggests a speech recognition system that performs confidence measures hypothesis testing via thresholding on the received signal to provide voice prompts to the user to manage the speech recognition process to be more effective and since Nguyen teaches a barge-in feature that prevents users' voices and barge-in echo from combining to disrupt the interactive session, also threshold-based, wherein his invention "provide[s] a method and apparatus for implementing …barge in" in the analogous art of telephone voice recognition systems and where "…the invention is useful even in the absence of local echo

cancellation, since it still provides a dynamic threshold for determination of whether a user signal is being input concurrent with a prompt." (Nguyen, Col 7. lines 6-9).

d) Crane, et al, teaches a barge-in feature for a speech recognition system in which, when the source of signal is determined to be a non-target barge-in, the barge-in mode of operation is deactivated (Crane, et al, Fig. 3 Elements 70, 72, 74).

e) It would have been obvious to someone of ordinary skill in the art at the time the invention was made to implement the teachings of Crane, et al, into Polikaitis, et al, since Polikaitis, et al, teaches an automatic interactive speech recognition system that uses voice prompts with the user in combination with incoming signal conditions hypothesis testing to threshold for disruptions, and since Crane, et al, teaches a method of determining of whether a potential barge-in signal energy detected is that of a user, with thresholding of a confidence measure to enable or disable prompt play in a barge-in system as "in one embodiment, [wherein] recognizer 37 determines whether the sound received is a target or a non-target signal by obtaining a score for that signal, and determining whether the score exceeds a threshold for recognizing the signal as a target (or as a non-target) signal." (Crane, et al, "Description of Preferred Embodiments" ¶ 18).

13. Claim 5 is rejected under 35 U.S.C. 103(a) in light of Polikaitis, et al, as applied to claim 1 and further in view of S Van Gerven, and F Xie - Proc. Eurospeech, 1997 (hereinafter "Gerven and Xie").

f) Polikaitis, et al, teaches the method of claim 1 upon which claim 3 depends. Polikaitis, et al, don't teach that the estimates of noise level are based on measuring the background signal, i.e. the input signal when before the user speaks or during speech pauses.

a) Gerven and Xie teach that correct voice activity detection should include characterizing the noise during noise periods and characterizing the speech during speech periods. Gerven and Xie teach characterizing a reception quality value (Gerven and Xie, §A ¶ 1, "energy of the total signal in the presence of speech") or a noise value (Gerven and Xie, §A ¶ 1, "varying noise level"), determined on the basis of a background signal (Gerven and Xie, §A ¶ 1, "background noise") which is received prior to the beginning of the utterance and/or in a speech pause of the user (Gerven and Xie, §B ¶ 1, "voice inactive segments.") or both.

b) It would have been obvious for one of ordinary skill in the art the time to implement the teachings of Gerven and Xie into the teachings of Polikaitis, et al, since Polikaitis, et al, suggests the benefits of measuring signal metrics associated with speech and noise against thresholds to reduce operational error and Gerven and Xie teach obtaining signal and noise metrics during speech and non-speech periods, respectively. (Gerven and Xie, page 1, ¶ 4) ("Adaptive speech enhancement algorithms typically behave completely different during speech periods than during noise periods. During speech periods the algorithms should learn as much as possible about the speech source and during noise

periods as much as possible about the noise source(s). Correct voice activity detection (VAD) is therefore crucial to their success."). Gerven and Xie also suggest that measuring the background noise during speech pauses are the "classic energy threshold method" of voice activity detection. (Gerven and Xie, §**B** ¶ 1).

14. Claim 6 is rejected under 35 U.S.C. 103(a) as being obvious over Polikaitis, et al, as applied to claim 4 above further in light of Marx, Matthew, et al, USPN 6173266 (hereinafter "Marx, et al").

a) Polikaitis, et al, teaches the method of claim 1 upon which claim 3 depends. Polikaitis, et al, don't teach that a reception corruption signal is sent to a dialog control device.

b) Dialog control devices existed and were widely used in the art at the time the invention was made for the purposes of managing voiced interactive sessions in automatic speech recognition systems.

c) Marx, et al, teach a dialog control module feature for an automatic interactive speech recognition system (Marx, et al, Fig 4) characterized in that the voice activity detector (Marx, et al, Fig 2) applies the reception quality value (Marx, et al, Fig 2, 260) or the noise value (Marx, et al, Fig 2, 270) itself (Marx, et al, Fig 2, 250) and/or, when the reception quality value drops below the reception quality threshold (Marx, et al, Fig 2, 280) or when the noise value exceeds the noise

threshold (Marx, et al, Fig 2, 280), a reception corruption indication signal (Marx, et al, Fig 2, 215) to a dialog control device (Marx, et al, Fig 4, 430).

d) Thus, it would have been obvious for one of ordinary skill in the art at the time the invention was made to implement the teachings of Marx, et al, into the teachings of Polikaitis, et al, since Polikaitis, et al, suggest the benefits of an interactive speech recognition system with voice activity detection for confidence measures hypothesis testing and use the results to mitigate errors due to reception conditions, and since Marx, et al, suggest the use of dialog control modules to manage the user interaction session in conjunction with confidence measures hypothesis testing to manage the interactive session. (Marx, et al, Col. 3 Line 46).

15. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Polikaitis, et al, and Marx, et al, as applied to claim 1 above further in view of Vanbuskirk, et al, USPN 6505155 (hereinafter "Vanbuskirk, et al").

a) Polikaitis, et al, teach a speech recognition system with voiced error prompts to the user based on the results of confidence measures hypothesis testing of incoming signal features. Marx, et al, teaches a speech recognition system wherein a dialog control device manages the voiced interactive session with a user in an interactive, automated speech system. Polikaitis, et al, and Marx, et al, do not teach that the user is sent any particular information when hypothesis tests fail.

b) Vanbursick, et al, teaches a method for operating speech recognition system an incoming signal (Vanbuskirk, et al, Fig. 4A Element 22) is analyzed (Vanbuskirk, et al, Fig. 4A Element 25, 33) as regards the type of disturbance causing (Vanbuskirk, et al, Fig. 4A Element 29) the reception quality value to be below the reception quality threshold or the noise value to be above the noise threshold (Vanbuskirk, et al, Fig. 4A Element 31), and that the dialog control device initiates the output of a prompt to the user (Vanbuskirk, et al, Fig. 4C-G Element 49, 44, 51,53, 57) who is thus given the information that the reception conditions are poor (Vanbuskirk, et al, Fig. 4C-G Element C) ."

c) It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of Vanbursick, et al, into the speech recognition system taught in Polikaitis, et al since Polikaitis suggests that a voiced alert to the user that the voice recognition conditions are likely to lead to an error, while Vanbuskirk suggests his system of dynamically composed voice prompts to the user reflecting poor ambient noise conditions serves that purpose. (Vanbuskirk, et al, ¶¶ 15 and 21). (i.e. The invention serves to "anticipate that recognition errors in consequence of heightened background noise … [and] … proactively adjust feedback [to the user]." and "Responsive to predicted adequate recognition accuracy, the present invention could reduce prompt feedback in the computer responsive prompt.").

d) Vanbursick's invention provides for dynamically composed voiced prompts to the user based on confidence measure hypothesis testing of the received signals.

Vanbuskirk does not teach explicitly that the information of the dynamically composed voice prompt to the user is that the reception conditions are poor when the confidence measures test fails.

e) The sending of information about reception condition problems is already anticipated in Polikaitis: "Alternatively, the microprocessor may permit the speech recognition processing to continue with a warning that the speech recognition output may be incorrect due to the error in the speech signal format" wherein errors in the speech signal format include "speech energy, noise energy, start energy, end energy, the percentage of clipped speech samples and other speech or signal related parameters within the speech acquisition window." (Polikaitis, et al, Col 2. Lines 41 and 51).

16. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Polikaitis, et al, as in claim 1 above further in view of Vanbuskirk, et al. and Steinbrenner, Kurt W., et al, USPN 6754310 (hereinafter "Steinbrenner, et al").

a) Polikaitis, et al, teaches the method of claim 1 upon which claim 3 depends. Polikaitis, et al, does not teach that the incoming signal is analyzed for the type of reception problem that occurs when the confidence measures hypothesis testing fails, and that this information is provided to the user via voiced messages.

b) Steinbrenner, et al, teach a method for operating an interactive automatic telephony system wherein analyzing an incoming signal (Steinbrenner, et al, Col.

2 Lines 31-42) is analyzed (Steinbrenner, et al, Col. 6 line 64 – Col. 7 line 1) as regards the type of disturbance causing the reception quality value to be below the reception quality threshold or the noise value to be above the noise threshold (Steinbrenner, et al, Col. 6 line 67), and that a prompt (Steinbrenner, et al, Fig. 5. Element 80; Fig. 7, 124) which contains diagnostic information (Steinbrenner, et al, Fig. 5. Element 78; Fig. 7, 122) is and outputting a prompt (Steinbrenner, et al, Fig. 5. Element 82; Fig. 7, 126) to the user.

c) Also, further note that Applicant's preferred embodiments of his invention included telephone-based systems such as those in Steinbrenner, et al: "Examples of such speech dialog systems are automatic answering and information systems which nowadays are used in particular by some large companies and public services so as to offer a caller as quickly and as comfortably as possible with the desired information ... [f]urther examples in this respect are automatic telephone information systems..." (Specification, ¶ 2) In the embodiments of Applicant's invention that consist of interactive telephone answering and information systems, the diagnostic information to be provided back to the user would necessarily be that taught in Steinbrenner, et al.

d) It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement the teachings of Steinbrenner, et al, into Polikaitis, et al, since Polikaitis, et al, suggests voiced alert prompts to the user under poor reception conditions while Steinbrenner, et al, describes the benefits of combining voiced prompts to the user containing network and device

diagnostic information in the analogous art of interactive automatic telephony. (Steinbrenner, et al, Col. 3 Lines 25 – 29)

17. Claims 9 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Polikaitis, et al, further in view of Marx, et al, and Bridges, James USPN 5978763 (hereinafter "Bridges").

a) As to claim 9, Polikaitis teaches a speech recognition system (Polikaitis, et al, Fig. 2 and Fig. 3) for the detection of a speech signal of a user (Polikaitis, et al, Fig. 2 and Fig. 3, 215) and a speech recognition device (Polikaitis, et al, Fig. 2 and Fig. 3, 290) so as to recognize speech information contained in the speech signal, characterized in that it comprises a quality control device for determining a reception quality value or a noise value, (Polikaitis, et al, Fig. 2 and Fig. 3, variables in 230, 240, 250, 260) representing a current reception quality, a comparator for comparing the reception quality value with a predetermined reception quality threshold or for comparing the noise value with a given noise threshold (Polikaitis, et al, Fig. 2 and Fig. 3, thresholds in 230, 240, 250, 260), and control means which are constructed in such a manner that the speech recognition system is switched over to a mode of operation which is less sensitive to noise and/or an alert signal is output to the user (Polikaitis, et al, Fig. 2 and Fig. 3, 233, 243, 253, 263) when the reception quality value drops below a given reception quality threshold or when the noise value exceeds a noise threshold.

b) In the context of this claim, the "or" being satisfied if the speech recognition system (1) "switches over to a mode of operation which is less sensitive to noise" or (2) "outputs an alert signal to the user". Polikaitis, et al, teaches the invention of claim 1 consistent with option (2).

c) Polikaitis, et al, do not teach that a control means causes the speech recognition system to send an alert signal to the user.

d) Marx, et al, teach a dialog control module that provides a control means for controlling an automatic interactive speech recognition session (Marx, et al, Fig 4) characterized in that the voice activity detector (Marx, et al, Fig 2) applies the reception quality value (Marx, et al, Fig 2, 260) or the noise value (Marx, et al, Fig 2, 270) itself (Marx, et al, Fig 2, 250) and/or, when the reception quality value drops below the reception quality threshold (Marx, et al, Fig 2, 280) or when the noise value exceeds the noise threshold (Marx, et al, Fig 2, 280), a reception corruption indication signal (Marx, et al, Fig 2, 215) to a dialog control device (Marx, et al, Fig 4, 430).

e) It would have been obvious for one of ordinary skill in the art at the time the invention was made to implement the teachings of Marx, et al, into the teachings of Polikaitis, et al, since Polikaitis, et al, suggest the benefits of an interactive speech recognition system with voice activity detection for confidence measures hypothesis testing to mitigate errors due to reception conditions, and since Marx, et al, suggest the use of dialog control modules to manage the user interaction

session in conjunction with confidence measures hypothesis testing to manage the interactive session. (Marx, et al, Col. 3 Line 46).

f) Polikaitis, et al, does not teach that a comparator is used for thresholding. However, a device that tests a value against a threshold is a kind of comparator. Thus, Applicant adds no new limitation in claim language where an initially narrow limitation (testing against a threshold) is followed by a broader limitation (use of a comparator).

g) Embodiments in which the dependent claim's added limitation of the comparator does not imply a limitation that is broader than the independent claim's thresholding includes applications in which the thresholding is a function that is separate and apart from the comparison against a threshold.

h) Bridges teaches a voice activity detection method that uses a comparator (Bridges, Fig 2, 268) to compare a received signal against an adaptive threshold (Bridges, Fig. 2) in a voice activity detector (also Bridges, ¶ 18).

i) Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of Bridges into the teachings of Polikaitis, et al, since Polikaitis, et al, suggests a speech recognition system that tests received signal for quality measures against a threshold and Bridges suggests that the use of a "threshold comparator" improves the performance of the voice activity detection in the case where echo return loss interferes with voice prompt system performance. (Bridges, ¶ 20) ("Controlling the threshold on the basis of the echo return loss measured not only reduces the number of false

triggering by the voice activity detector due to echo, but also reduces the number of triggering of the voice activity detector when the user makes a response over a line having a high amount of echo.").

As to claim 11, Polikaitis in view of Marx *et al.* in view of Bridges teach all of the limitations as in claim 9.

Furthermore, Polikaitis teaches a voice activity detector (see col. 4, lines 32-35, speech noise classifier (interpreted to be the speech/noise classifier in conjunction with microprocessor 110) used for determining noise and speech frames and col. 4, lines 42-col. 5, lines 15, features extracted as a result of the classification and see Figure 3, where the values are compared to a threshold to determine if speech recognition may be correct or incorrect.)

As to claim 12, Polikaitis in view of Marx *et al.* in view of Bridges teach all of the limitations as in claim 9.

Furthermore, Marx, et al, teach a control means for controlling an automatic (Marx, et al, Fig 4, dialogue modules are presented to the telephony interface based on speech input and output) further comprises a barge-in switching unit (see col. 7, lines 20-28, software to detect caller speech to provide barge-in detection and handling).

As to claim 13, Polikaitis in view of Marx *et al.* in view of Bridges teach all of the limitations as in claim 9.

Furthermore, Marx teaches. wherein the control means further comprises a dialog control device (see Figure 4, all components, dialogue modules are used to interface with telephony systems to control speech input and output and see col. 6, lines 62-67).

Conclusion

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PARAS SHAH whose telephone number is (571)270-

1650. The examiner can normally be reached on MON.-THURS. 7:00a.m.-4:00p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571)272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. S./

Examiner, Art Unit 2626

06/27/2008

/Patrick N. Edouard/

Supervisory Patent Examiner, Art Unit 2626